DATE: 12/17/2001



OIPE

```
PATENT APPLICATION: US/10/010,066
                                                            TIME: 11:09:14
                     Input Set : A:\Sequence Listing.txt
                     Output Set: N:\CRF3\12172001\J010066.raw
     4 <110> APPLICANT: University of Iowa Research Foundation
             Schwartz, David A.
     6
             Schutte, Brian C.
     8 <120> TITLE OF INVENTION: Variant TLR4 nucleic acid and uses thereof
     10 <130> FILE REFERENCE: 875.010W01
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/010,066
C--> 12 <141> CURRENT FILING DATE: 2001-12-07
    12 <150> PRIOR APPLICATION NUMBER: US 09/329,515
                                                                ENTERED
    13 <151> PRIOR FILING DATE: 1999-06-10
    15 <160> NUMBER OF SEQ ID NOS: 72
    17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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    20 <211> LENGTH: 28
    21 <212> TYPE: DNA
    22 <213> ORGANISM: Homo sapiens
    24 <400> SEQUENCE: 1
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    28 <211> LENGTH: 28
    29 <212> TYPE: DNA
    30 <213> ORGANISM: Homo sapiens
    32 <400> SEQUENCE: 2
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    35 <210> SEQ ID NO: 3
    36 <211> LENGTH: 28
    37 <212> TYPE: DNA
    38 <213> ORGANISM: Homo sapiens
    40 <400> SEQUENCE: 3
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    42 <210> SEQ ID NO: 4
    43 <211> LENGTH: 21
    44 <212> TYPE: PRT
    45 <213> ORGANISM: Homo sapiens
    47 <400> SEQUENCE: 4
    48 Leu Ala Tyr Leu Asp Tyr Tyr Leu Asp Asp Ile Ile Asp Leu Phe Asn
                         5
    49
                                             10
         1
    50
        Cys Leu Thr Asn Val
    51
                     20
    53 <210> SEQ ID NO: 5
    54 <211> LENGTH: 20
    55 <212> TYPE: PRT
    56 <213> ORGANISM: Mus musculus
    58 <400> SEQUENCE: 5
    59 Leu Thr Tyr Thr Asn Asp Phe Ser Asp Asp Ile Val Lys Phe His Cys
                                             10
    60
    61
         Leu Ala Asn Val
    62
                     20
```

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING DATE: 12/17/2001 PATENT APPLICATION: US/10/010,066 TIME: 11:09:14

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\12172001\J010066.raw

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64 <210> SEO ID NO: 6
65 <211> LENGTH: 20
66 <212> TYPE: PRT
67 <213> ORGANISM: Rattus norvegius
69 <400> SEQUENCE: 6
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71
     1
                                         10
72
     Leu Ala Asn Ile
73
75 <210> SEQ ID NO: 7
76 <211> LENGTH: 20
77 <212> TYPE: PRT
78 <213> ORGANISM: Cricetulus griseus
80 <400> SEQUENCE: 7
81
    Phe Thr Tyr Ala Asn Glu Phe Ser Glu Asp Ile Thr Asp Phe Asp Cys
82
     1
                                         10
83
     Leu Ala Asn Val
84
86 <210> SEQ ID NO: 8
87 <211> LENGTH: 20
88 <212> TYPE: DNA
89 <213> ORGANISM: Homo sapiens
91 <400> SEQUENCE: 8
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92 atggggcata tcagagccta
94 <210> SEQ ID NO: 9
95 <211> LENGTH: 20
96 <212> TYPE: DNA
97 <213> ORGANISM: Homo sapiens
99 <400> SEQUENCE: 9
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100 gtccaatggg gaagttctct
102 <210> SEQ ID NO: 10
103 <211> LENGTH: 20
104 <212> TYPE: DNA
105 <213> ORGANISM: Homo sapiens
107 <400> SEQUENCE: 10
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108 tcattgtcct gcagaaggtg
110 <210> SEQ ID NO: 11
111 <211> LENGTH: 20
112 <212> TYPE: DNA
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 11
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116 cagggetttt ctgagtegte
118 <210> SEQ ID NO: 12
119 <211> LENGTH: 20
120 <212> TYPE: DNA
121 <213> ORGANISM: Homo sapiens
123 <400> SEQUENCE: 12
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124 ctgctcggtc aaacggtgat
126 <210> SEQ ID NO: 13
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Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\12172001\J010066.raw

	<211> LENGTH: 20 <212> TYPE: DNA	
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140	gagttgggag accatgcagt	20
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	<210> SEQ ID NO: 16	
	<211> LENGTH: 20	
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	<213> ORGANISM: Homo sapiens	
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156	ggtggctgtg gagacaaatc <210> SEO ID NO: 17	20
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	<213> ORGANISM: Homo sapiens	
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166	<210> SEQ ID NO: 18	
	<211> LENGTH: 19	
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	<213> ORGANISM: Homo sapiens	
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174	<210> SEQ ID NO: 19	
	<211> LENGTH: 23	
	<212> TYPE: DNA	
	<213> ORGANISM: Homo sapiens	
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180	tgggagaatt tagaaatgaa gga	23
	<210> SEQ ID NO: 20	
	<211> LENGTH: 21	
	<212> TYPE: DNA	
	<213> ORGANISM: Homo sapiens <400> SEQUENCE: 20	
188	tttcttcatt ttccctggtg a	21
	<210> SEQ ID NO: 21	~ 1
	<211> LENGTH: 20	
	222. 22.02 20	



TIME: 11:09:14

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\12172001\J010066.raw

PATENT APPLICATION: US/10/010,066

	<212> TYPE: DNA
	<213> ORGANISM: Homo sapiens
	<400> SEQUENCE: 21
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	<210> SEQ ID NO: 22
	<211> LENGTH: 22
	<212> TYPE: DNA
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	<400> SEQUENCE: 22
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	<210> SEQ ID NO: 23
	<211> LENGTH: 23
	<212> TYPE: DNA
209	<213> ORGANISM: Homo sapiens
211	<400> SEQUENCE: 23
212	tcaaacttct tgggcttaga aca
	<210> SEQ ID NO: 24
215	<211> LENGTH: 20
216	<212> TYPE: DNA
217	<213> ORGANISM: Homo sapiens
219	<400> SEQUENCE: 24
220	cagagttgct ttcaatggca
222	<210> SEQ ID NO: 25
223	<211> LENGTH: 20
224	<212> TYPE: DNA
225	<213> ORGANISM: Homo sapiens
227	<400> SEQUENCE: 25
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230	<210> SEQ ID NO: 26
231	<211> LENGTH: 18
232	<212> TYPE: DNA
233	<213> ORGANISM: Homo sapiens
235	<400> SEQUENCE: 26
236	ttcattggat acgtttcc
238	<210> SEQ ID NO: 27
239	<211> LENGTH: 20
240	<212> TYPE: DNA
241	<213> ORGANISM: Homo sapiens
	<400> SEQUENCE: 27
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	<210> SEQ ID NO: 28
	<211> LENGTH: 20
	<212> TYPE: DNA
	<213> ORGANISM: Homo sapiens
	<400> SEQUENCE: 28
252	tgcctgtgct gagtttgaat
	<210> SEQ ID NO: 29
	<211> LENGTH: 20
	<212> TYPE: DNA
230	



RAW SEQUENCE LISTING DATE: 12/17/2001 PATENT APPLICATION: US/10/010,066 TIME: 11:09:14

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\12172001\J010066.raw

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260	cggtcctcag tgtgcttgta	2
262	<210> SEQ ID NO: 30	
263	<211> LENGTH: 20	
264	<212> TYPE: DNA	
265	<213> ORGANISM: Homo sapiens	
	<400> SEQUENCE: 30	
268	ccaggatgag gactgggtaa	2
270	<210> SEQ ID NO: 31	
271	<211> LENGTH: 20	
272	<212> TYPE: DNA	
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276		2
	<210> SEQ ID NO: 32	
	<211> LENGTH: 23	
	<212> TYPE: DNA	
	<213> ORGANISM: Homo sapiens	
	<400> SEQUENCE: 32	
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	<210> SEQ ID NO: 33	_
	<211> LENGTH: 20	
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	<213> ORGANISM: Homo sapiens	
	<400> SEQUENCE: 33	
292		2
	<210> SEQ ID NO: 34	_
	<211> LENGTH: 20	
	<212> TYPE: DNA	
	<213> ORGANISM: Homo sapiens	
	<400> SEQUENCE: 34	
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	33 33 3	2
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316	3 3	2.
	<210> SEQ ID NO: 37	
	<211> LENGTH: 20	
	<212> TYPE: DNA	
3 Z I	<213> ORGANISM: Homo sapiens	



Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.



VERIFICATION SUMMARY
PATENT APPLICATION: US/10/010,066

DATE: 12/17/2001
TIME: 11:09:15

Input Set : A:\Sequence Listing.txt
Output Set: N:\CRF3\12172001\J010066.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:547 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:548 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:549 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:549 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:590 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:598 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:598 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:599 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:600 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:601 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:602 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:604 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:605 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:606 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:606 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:606 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:607 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:614 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:620 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:630 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:62
L:648 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:70
L:787 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:70
L:788 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:70
L:788 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:849 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:859 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:859 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:859 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:859 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:859 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:818 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:819 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:819 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:810 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L:811 M:341 W: (46) "n" or "xaa" used, for SEQ ID#:72
L: